

**Notice of Allowability**

Application No.	Applicant(s)	
09/256,386	MULLER ET AL.	
Examiner	Art Unit	
Dah-Wei D. Yuan	1745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTO-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS**. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1.  This communication is responsive to 11/24/03.
2.  The allowed claim(s) is/are 1-34.
3.  The drawings filed on 24 February 1999 are accepted by the Examiner.
4.  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a)  All    b)  Some\*    c)  None    of the:
    1.  Certified copies of the priority documents have been received.
    2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3.  Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

5.  Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
  - (a)  The translation of the foreign language provisional application has been received.
6.  Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE**

7.  A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
8.  CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a)  including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1)  hereto or 2)  to Paper No. \_\_\_\_\_.
  - (b)  including changes required by the proposed drawing correction filed \_\_\_\_\_, which has been approved by the Examiner.
  - (c)  including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the margin according to 37 CFR 1.121(d).

9.  DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

#### Attachment(s)

- |   |   |
|---|---|
| 1 <input type="checkbox"/> Notice of References Cited (PTO-892)   | 5 <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)          |
| 2 <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 6 <input type="checkbox"/> Interview Summary (PTO-413), Paper No. _____.            |
| 3 <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No. _____. | 7 <input type="checkbox"/> Examiner's Amendment/Comment                             |
| 4 <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material | 8 <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
|   | 9 <input type="checkbox"/> Other  |

**DIRECT DIMETHYL ETHER FUEL CELLS**

Examiner: Yuan S.N. 09/256,386 Art Unit: 1745 January 20, 2004

**Detailed Action**

1. The Applicant's request for reconsideration filed on November 24, 2003 was received.
  
2. The text of those sections of Title 35, U.S.C. code not included in this action can be found in the prior Office Action (Paper No. 6).

***Claim Rejections***

3. The claim rejections under 35 U.S.C. 102(e) as anticipated by Tillmetz et al. on claims 1-5,12,14,22-25,28 are withdrawn because foreign priority based on a certified translation of the German patent application No. 19807876.5 has been established and applicant's arguments filed on November 24, 2003 are persuasive. The claim rejections under 35 U.S.C. 103(a) as obvious over Tillmetz et al. on claims 6-9,13,20,21,26,27,29 are withdrawn because foreign priority based on a certified translation of the German patent application No. 19807876.5 has been established and applicant's arguments filed on November 24, 2003 are persuasive. The claim rejections under 35 U.S.C. 103(a) as obvious over Tillmetz et al. and Prakash et al. on claims 15,30,31,34 are withdrawn because foreign priority based on a certified translation of the German patent application No. 19807876.5 has been established and applicant's arguments filed on November 24, 2003 are persuasive.

***Reasons for Allowance***

4. Claims 1-34 are allowed. The invention of independent claim 1 recites a method of operating a fuel cell comprising an anode, a cathode and a solid polymer electrolyte, said method comprising supplying a fuel stream comprising dimethyl ether to said anode wherein dimethyl ether is directly oxidized at said anode. The closest prior art of record, Yasuyuki et al., does not teach or suggest the use of dimethyl ether as fuel in a direct solid polymer electrolyte fuel cell. The invention of independent claim 22 recites a fuel cell system comprising a fuel cell and a fuel stream supply comprising dimethyl ether, which is directly oxidized at the said fuel cell comprising an anode, a cathode and a solid polymer electrolyte. The closest prior art of record, Yasuyuki et al., does not teach or suggest a direct solid polymer electrolyte fuel cell having dimethyl ether as the fuel.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dah-Wei D. Yuan whose telephone number is (571) 272-1295. The examiner can normally be reached on Monday-Friday (8:00-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan, can be reached on (571) 272-1292. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and After Final communications.

Dah-Wei D. Yuan  
January 20, 2004

  
Patrick Ryan  
Supervisory Patent Examiner  
Technology Center 1700